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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/659,198

09/09/2003

Hirokazu Takenaka

2271/70993

5602

7590

03/23/2005

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EXAMINER

NGUYEN, THINH H

ART UNIT

PAPER NUMBER

2861

DATE MAILED: 03/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/659,198

**Applicant(s)**

TAKENAKA, HIROKAZU

**Examiner**

Thinh H. Nguyen

**Art Unit**

2861

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7, 11-15 and 18-20 is/are rejected.
- 7) ☒ Claim(s) 8-10, 16 and 17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 9/9/03.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-7, 11-15, 18-20 are rejected under 35 U.S.C. § 102(e) as being anticipated by Teshigawara et al. (U.S.6,827,424)

Re claims 1, 13, 14, and 18, Teshigawara (figs.2, 7) discloses elements of the instant claimed method and apparatus for printing, controlling image formation, comprising:

an image processing unit (200) which processes source color data to generate output color data together with a signal indicative an order squirts in which a plurality of inks of respective colors are squirted onto given pixel;

an inkjet print unit (1) which configured to squirt the plurality of inks in different orders of ink squirts and prints color images based on the output color data by squirting the inks in the order of ink squirts indicated by said signal;

Re claims 2, 4, processing units corresponding to lookup tables (205) which defines relationships between the source color data and the output color data at a

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plurality of points in a color space; and correction unit (207) which interpolates the output color data at a given point the in a color space between data points, wherein said lookup table is configured such that some of said points in the color space are given two or more sets of the output color data.

a selecting unit (208) which selects the order of ink squirts from the different orders of ink squirts, and selects one of said image processing units accordingly, thereby outputting the output color data together with the signal indicative of the order of ink squirts.

Re claims 5, 6, 7, the selecting unit selects the order of ink squirts on a page-specific basis, a pixel-specific basis, a block-specific basis. (col.11, lines 3-8, characterized by reproduction within pixel, raster, swath printing)

Re claim 15, the steps of obtaining a gamut of reproducible colors with respect each of different orders of squirts; and selecting the order of ink squirts based on the obtained gamut of reproducible colors. (characterized by data expressed by hue, level of the gradient; col.11, lines 9-20)

Re claims 11, 12, 19, 20, inkjet print unit includes plurality of nozzle lines (see fig.3), which are arranged in main-scan direction, and are each comprised plurality nozzles arranged in sub-scan direction, said plurality of nozzle lines including two more nozzle lines the same ink color and at least one nozzle line of different ink color between said or more nozzle lines; the plurality nozzle lines are symmetrically arranged in respect of a center axis that extends perpendicularly the main-scan direction.

***Allowable Subject Matter***

3. Claims 8-10, 16-17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

4. The following is a statement of reasons for the indication of allowable subject matter: the teaching relied upon by the Examiner do not suggest the selecting unit refers to a mode selected by a user and selects the order of ink squirts as being optimum in view the selected mode, the step of obtaining amounts of consumption required for printing the images with respect to different orders squirts; selecting the order ink squirts based on the obtained amounts of ink consumption; the steps of obtaining a gamut of reproducible colors and amounts of ink consumption required for printing color images with respect to each of different orders of ink squirts; and selecting the order of ink squirts based on the obtained gamut of reproducible colors and the obtained amounts consumption. These limitations are neither suggested nor taught by the prior art of record, alone or in combination as claimed.

***Pertinent Prior art***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent 4,593,295 to Matsufuji et al.

***Patent Application Information Retrieval (PAIR)***

6. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

#### **Contact Information**

7. Any inquiry concerning this communication should be directed to examiner Thinh Nguyen at telephone number (571) 272-2257. The examiner can generally be reached Mon-Wed, and Thurs from 9:00A – 5:00P. The official fax phone number for the organization is (703) 872-9306. The examiner supervisor, Dave Talbott, can also be reached at (571) 272-1934.

Any inquiry of a general nature or relating to the status of this application should be directed to the group receptionist whose telephone number is (703) 308-1782.



Thinh Nguyen

March 17, 2005

**Thinh Nguyen**  
**Primary Examiner**  
**Technology Center 2800**